REMARKS

In view of the above amendment and following remarks, reconsideration of the present application is respectfully requested.

By this amendment, claims 15, 16 and 18 have been amended. No new matter has been added.

Claims 15 & 16 have been rejected under 35 U.S.C. § 101 as reciting non-statutory subject matter.

By this Amendment, claim 15 has been amended to recite that the recording medium is a non-transitory computer-readable recording medium. Such amendment is supported, for example, at least by page 90 of the specification. Further by this Amendment, claim 16 has been amended to recite that the module and the module manager are each configured from hardware including a processor and a memory, and a program stored in the memory. Such amendment is supported, for example, at least by page 27 of the specification describing the playback apparatus as including a CPU 22 and an instruction ROM 24. As further described on page 34, the hardware and software stored in the ROM 24 are shown in Fig. 18. Accordingly, each of claims 15 and 16, as amended, clearly recite statutory subject matter.

Claims 15, 16 and 18 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Tsumagari et al. (US Pub. 2003/0161615), hereinafter "Tsumagari", in view "Digital Television Application Manager", hereinafter "Peng".

The aforementioned rejection of claims 15, 16 and 18 is respectfully traversed. Nonetheless, without intending to acquiesce to the aforementioned rejection and in order to more clearly distinguish claim 15 over the prior art relied upon by the Examiner, claim 15 has been

amended to clarify that the first operation mode object is loaded by a playback apparatus when the playback apparatus is in a first operation mode (i.e., movie mode) and the second operation mode object is loaded by the playback apparatus when the playback apparatus is in a second operation mode (i.e., virtual machine). Support for such amendments can be found, for example, at least by Figures 29-30A and page 48 (line 1) – page 50 (line 24) of the specification.

It is submitted that the prior art references, taken either alone or in combination, fail to disclose or suggest the features recited in independent claims 15, 16 and 18.

On pages 10-15 of the Office action, the Examiner has relied upon the VTS information and the ENAV contents 30 disclosed in the Tsumagari reference for teaching the first operation mode object and second operation mode object, respectively, as recited in independent claims 15, 16 and 18. However, as will be described below, such reliance by the Examiner for teaching the first operation mode object and second operation mode object as recited in the independent claims is improper.

As described in paragraphs [0079]-[0080] of the Tsumagari reference, the ENAV contents 30 corresponding to a particular button is played back upon a user selecting such button or based upon an internal command. Viewing the flowchart shown in Figure 6 and based upon paragraphs [0154]-[0157] of the Tsumagari reference, concurrent with the DVD-Video engine launching playback of the DVD-Video title ("Title playback" in ST10 of Figure 6), the ENAV engine 300 fetches ENAV contents 30 ("Fetch ENAV contents" in ST20 of Figure 6). Such description indicates that the ENAV engine 300 of Tsumagari reads ENAV contents 30 to a memory, such as a cache, when playback of DVD-Video contents is commenced. Thereafter, the ENAV engine 300 waits for a user event to be generated by the user's operation ("Wait for event" in ST22 of Figure 6). When receiving an event signal ("DVD event signal received" in

ST24) and when the ENAV menu contents exist ("ENAV menu found" in ST26), the ENAV engine 300 executes the ENAV menu (ST32 in Figure 6) and commences playback in the ENAV mode (ST34 in Figure 6).

According to the above description of the Tsumagari reference, it is required that playback of a DVD-Video title is launched in order to perform a reading of ENAV contents into a memory/cache. Thus, unlike the independent claims of the present application and even assuming *arguendo* that that the ENAV contents of Tsumagari correspond to archive files composing an application, the Tsumagari reference still would fail to disclose reading applications when a title for playback in a virtual machine is selected. Accordingly, the Tsumagari reference fails to disclose a file that includes cache management information that shows files to be read into the cache, that is, the second operation mode object, as recited in each of the independent claims 15, 16 and 18.

Furthermore, independent claims 15, 16 and 18 further recite an index table showing a title in correspondence with the second operation mode object, and reading a file into the cache when a title corresponding to the second operation mode object becomes a current title. The Tsumagari reference fails to disclose such feature as described next.

Particularly, since the ENAV contents of the Tsumagari reference are read into a memory such as a cache when playback of DVD-Video contents is launched as described above, the ENAV contents read into the memory along with the DVD-Video contents remain unused when playback of the DVD-Video contents is mainly performed. Regarding this point, according to the features of the present application, the second operation mode object is a file that is read by the playback apparatus in place of the first operation mode object that is a command-based file, and it is when the title corresponding to the second operation mode object becomes a current title

that the application is read into the cache as shown in the cache management information. As a result, the embodiment of the present application has an advantage that the consumption of computer resources is restricted to a minimal degree by the application not being stored in the cache for a time longer than necessary.

In contrast, the Tsumagari reference fails to disclose an arrangement or structure for restricting unnecessary consumption of cache resources. The reason for this is that the Tsumagari reference does not disclose any equivalent teaching of the second operation mode object and the index table as particularly recited in independent claims 15, 16 and 18 of the present application (i.e., the second operation mode object including the cache management information and the index table showing correspondence between the operation modes and the titles).

It is further submitted that the Peng reference cited by the Examiner fails to cure the aforementioned shortcomings of the Tsumagari reference. Particularly, the Peng reference discloses an application manager which receives an Xlet program which is multiplexed with a transport stream, downloads an Xlet program application, and launches the Xlet program application (see "1. INTRODUCTION" on page 104 of Peng).

The information which is necessary for downloading the Xlet program application is included in an AIT table. The application manager obtains information required for downloading the Xlet program by decoding a transport stream and obtaining the AIT table (see Figure 1 and "2. TRANSPORT STREAM AND AIT" on pages 104-105 of Peng). As depicted in Figure 1 of the Peng reference, the AIT table is multiplexed with a transport stream. Thus, the AIT table differs from the operation mode object, as recited in the independent claims, which includes the application management table and which is associated with title numbers in the

index table. Accordingly, the AIT table disclosed in the Peng reference clearly fails to disclose or suggest such features of the second operation mode object as particularly recited in each of independent claims 15, 16 and 18 of the present application.

In view of the above, it is submitted that the Tsumagari and Peng references, taken either alone or in combination, fail to disclose or suggest cache management information which shows, of files that compose applications, which file is to be read to a cache before audio-visual playback of the title corresponding to the second operation mode object when said title becomes a current title, as recited in each of independent claims 15, 16 and 18 of the present application.

In view of the foregoing, it is submitted that the present application is clearly allowable and the Examiner is kindly requested to promptly pass this case to issuance.

In the event, however, that the Examiner has any comments or suggestion of a nature necessary to place this case in condition for allowance, then the Examiner is kindly requested to contact the Applicant's representatives to expedite allowance of this application.

Respectfully submitted,

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